

<b>Orthophosphate (or Total Phosphorus) by Ascorbic Acid Method</b> <b>SM 18<sup>th</sup> /19<sup>th</sup> /20<sup>th</sup> Ed. 4500-P E</b>						Page 1 of 1
Facility Name: _____ VELAP ID: _____						
Assessor Name: _____ Analyst Name: _____ Inspection Date: _____						
Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments	
<i>Records Examined:</i> SOP Number/ Revision/ Date _____ Analyst: _____						
Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____						
For total phosphorus, are samples digested using an appropriate method?	4500-P A					
Is glassware acid-washed with HCl and rinsed with DI? <i>NOTE: If glassware is designated only for phosphate analysis, acid-washing may be done occasionally.</i>	4500-P E.2.b					
Is ascorbic acid solution kept for no longer than about 1 week and stored at 4°C?	4500-P E.3.d					
Is the combined reagent made fresh using the following proportions for 100 mL of the combined reagent? 50 mL 5N H <sub>2</sub> SO <sub>4</sub> , 5 mL potassium antimonyl tartrate solution, 15 mL ammonium molybdate solution, and 30 mL ascorbic acid solution in the order listed?	4500-P E.3.e					
Is 1 drop (0.05 mL) phenolphthalein added to 50 mL of sample?	4500-P E.4.a					
If a red color develops after the addition of phenolphthalein to the samples, is 5N H <sub>2</sub> SO <sub>4</sub> added dropwise to discharge the color prior to addition of the combined reagent?	4500-P E.4.a					
Is 8 mL of combined reagent then added and the sample mixed?	4500-P E.4.a					
Are samples read within 10 to 30 minutes of adding combined reagent?	4500-P E.4.a					
Are samples read at 880 nm using a reagent blank as the reference solution?	4500-P E.4.a					
For highly colored or turbid waters, is a blank prepared by adding all reagents except ascorbic acid and potassium antimonyl tartrate to the sample, and is this blank absorbance subtracted from each sample absorbance?	4500-P E.4.b					
Is the calibration curve composed of at least six standards within the following ranges, with the regression passing through the origin? Acceptable ranges: 0.30-2.0 mg/L for 0.5 cm light path; 0.15-1.30 mg/L for 1.0 cm light path, or 0.01-0.25 mg/L for 5.0 cm light path.	4500-P E.4.c					
Notes/ Comments						

